



# WEST UNION AQUATIC CENTER CARDBOARD REGATTA

Labor Day  
September 2<sup>nd</sup>, 2019

Race starts at 10:30  
Entry Fee is \$25 or a bag of  
school supplies

563.380.8496 [www.wuparkandrec.com](http://www.wuparkandrec.com)



# INTRODUCTION

- This event raises awareness, get people excited, celebrate the spirit together and helps. Being a part of the Cardboard Boat Race can be a great Team Building activity for your family. You will get to design, name, build and sail your own boat. On Race Day, the other members can come cheer them on. There are a number of benefits:
  - Facilitates better communication
  - Promotes creativity
  - Deepens relationships
  - Increases morale
  - Improves problem-solving skills
- Boats are made entirely of cardboard and powered by two paddlers. They will race across the West Union Aquatic Center pool. Boats compete in individual heats for honor, glory and some pretty awesome trophies.
- As a part of our fleet you will:
  - Have a boatload of fun
  - Compete in an amazing event
  - Have a safe racing environment on race day.





# DETAILS

## COMMITMENT

Captains and Crews who wish to participate in the West Union Aquatic Center's Great Cardboard Boat Race event make a commitment to the following:

- Construct a boat out of cardboard and duct tape. All boats are human powered (oars and paddles are acceptable as propulsion tools; you provide the oars/paddles; NO kayak style paddle, minimum of 1 person)
- Participate in the entire event which includes:
  - Attend the race on Monday by checking in by 10:00 am at the latest.
  - Stay for brief awards ceremony immediately after the final race
  - Dispose of or remove boat from property after the race

## IMPORTANT DATES

- **August 30<sup>th</sup>, 2019**
  - Last day for boat's to register. All boats must have submitted their final Name of Boat (or boat will be only known as the family name)
- **Race day -Boat drop-off**
  - Boats must be brought to aquatic center between 8:00-10:00 a.m. From 10:00-10:20 a.m there will be a Boat Crew Orientation. Boat crews must come to the Boat Crew Orientation. During this time, we will collect team members' signed waivers.
  - At this time they will be introduced to their race liaison and the Guest Judges will also pick their favorite boat.
  - Teams are encouraged to come earlier if they have a staging area they wish to set up in the aquatic center. The first boats hit the water at 10:30 a.m.



# CONSTRUCTION AND RACE RULES

- The ENTIRE boat must be built of cardboard, duct tape, and one-part polyurethane. (Any part of your boat that touches the water must be cardboard. This includes the hull, decking, keel, cowling, superstructure, oar locks, seating and rudder. Nuts, bolts, washers and staples are NOT allowed in hull construction. The cardboard may be as thick as you want, but may not be glued or attached to wood, plastic, fiberglass, etc.)
- Boats must be under 3 ft wide x 6 ft long
- Only exceptions are the paddles & decorations
  - Paddles must be less than 6 ft long
- Use cardboard boxes, “blocks”, carpet tubes
- NO pre-treated cardboard allowed
- No Sona-Tubes, waxed or ‘treated’ cardboard
- NO wood, plastic, styrofoam or fiberglass
- NO caulking compounds or two-part/mixed adhesives
- NO wrapping in duct tape, plastic or fiberglass or similar product
- Duct tape may be used to reinforce seams





# CONSTRUCTION AND RACE RULES

- Duct tape, masking tape, or adhesives such as 'liquid nails' CAN be used to connect cardboard to cardboard and CAN be used to reinforce all seams and stress points. It CANNOT be used to waterproof boats.
- Waterproof the boat with Varnish, Paint or Polyurethane (one-part, paint-like substance).  
(If you don't want your boat to sink, waterproof the entire boat with any paint-able, one-part substance like Varnish or Polyurethane inside and out.)
- Decorations are encouraged -as long as they don't effect structural strength or buoyancy
- Boats CANNOT tow anything behind them for the safety of other boats.
- The crew compartment CANNOT be enclosed so as to interfere with escape
- Every crewmember must wear a **PERSONAL FLOATATION DEVICE (PFD) & proper footwear.**  
**Please provide your own PFDs.**
- All crew members **MUST** sign a Participant Waiver/Hold Harmless Agreement on race day.  
Boats will not be allowed to race without a signed agreement from each race participant
- Minimum of ONE crewmember
- All boats are human powered (oars and paddles you provide are acceptable as propulsion tools, **NO kayak style paddles**)
- Alcoholic beverages are NOT permitted at any time



# CONSTRUCTION AND RACE RULES

- Boats should weigh less than 200 lbs – This rule is for us. (Please keep your boat under 200 lbs. If you need help getting out of the pond, we need the odds stacked in our favor.)
- Boats should be less than 3 feet wide – Here, more is not better
- Care should be taken that construction does not include pointed objects and sharp edges that could injure anyone
- Surfboard style designs are NOT allowed. Consider “staying dry” part of the challenge.
- Raft style designs ARE allowed. (The distinguishing feature of a raft design as opposed to a surfboard style is the use of cardboard “logs” and other such accoutrements as one would expect to find in/on a raft. Think Huck Finn.)
- **RACE DAY** - Please check in (entire crew) at the registration table on race day no later than 10:00 a.m. Unload your boat in the display area. After unloading, please move your vehicle to the parking lot. Set up your boat display. After the safety inspection is complete, Boats will race other boats across the pool. After the race, the boat crews must remove all cardboard, decorations and other materials from the water and the grounds. Volunteers will be on hand to help. You **MUST** take your boat home with you!
- If there is any doubt about the construction, the judges reserve the right to use a probe, such as an ice pick, to test and verify that only cardboard has been used. Failure to abide by any design, race rule or the direction of a race official shall be cause for disqualification. The Judges’ decision shall be final.
- Please contact the Parks and Rec office if you have any questions



# CONSTRUCTION MATERIALS

## Permissible Materials

- Corrugated Cardboard
- Appliance or grocery stores
- Cardboard “blocks”
- Furniture stores
- Cardboard Tubes
- Carpet/linoleum stores
- Fastening material
- Duct or masking tape
- Liquid nails adhesive
- Latex Paint, Varnish

## Materials Not Allowed

- Wood, Styrofoam
- Plastic sheathing
- Fiberglass
- Sona-Tubes, coated cardboard
- Silicon, Wax, Tar
- Caulking compounds
- Metal, staples, clamps, screws

Judges decide on the interpretation of the rules



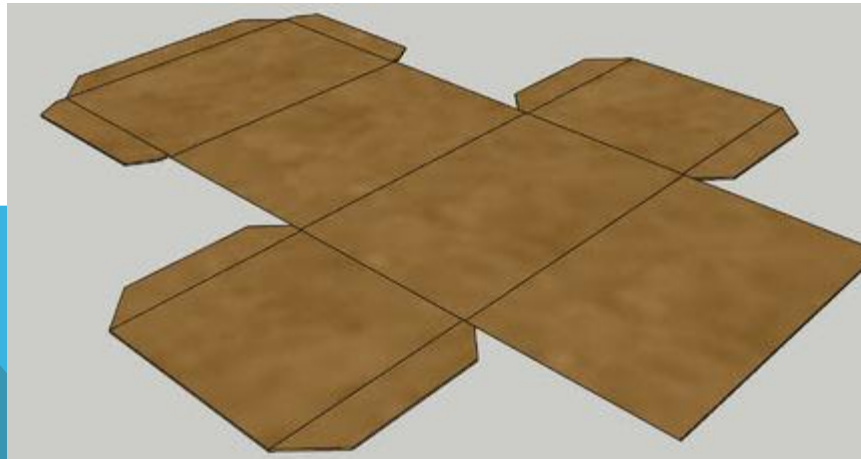
# CONSTRUCTION MATERIAL EXAMPLES:



Carpet Tube  
(about 4 1/2" dia.)



Cardboard Block  
(2-3" thick)



Cardboard Box- Cut open





# CARDBOARD BOAT DESIGN

- Consider the size of the boat - building & transporting
  - Big enough to hold crew, small enough to transport and carry
  - Wider is better for stability, but still must be able to paddle
    - No surfboard style designs are allowed
    - Rafts are allowed
  - Consider total weight of all materials when wet
  - **EVERYTHING** must be removed from the pool
- Boat decorations and crew costumes are encouraged - use your imagination; you will be awarded for your creativity!

# CARDBOARD BOAT DESIGN SUGGESTIONS

- Set the Design Goal: Fun, Speed and Appearance
- Sketch out your design
  - build a scale model from manila paper:
    - estimate materials or plan how to use what you have
    - plan out what construction techniques will be used
- 1'x1'x3' box will float 187 lbs.
  - If it'll hold you, it's big enough to float
- Flat bottom, sit-to-paddle & canoe styles -are the best/easiest
- Rudders help keep you straight but make turning difficult and adds complexity to your design.



# MORE CARDBOARD BOAT DESIGN SUGGESTIONS



- Long boats go fast - but are harder to turn
- Short boats (<6') - are difficult to keep straight
- Best Height: 18 inches
  - allows room to sit/kneel & still paddle over the edge
- Best Width:
  - 18"-36"(max) for 2 or more people front and rear
- Kneeling is a "power" position but sitting is more comfortable



# CONSTRUCTION TIPS & TECHNIQUES 1

- Cover all edges of cardboard -acts like siphon
- Cardboard Tubes make great frames
  - Cut for joining & bending
  - Fasten tubes together
- Cardboard Hull
  - 1-2 layers, fasten & cover the seams
  - With 2 layers, overlap the seams & polyurethane in between
  - Decorate, paint & varnish
- Reinforce the area where you sit, kneel or stand



# CONSTRUCTION TIPS & TECHNIQUES 2

- **Carpenter's glue and liquid nails work well**
  - (hot-melt glues will melt in the heat and sun)
- **Duct tape only non-painted surfaces (tubes or frame that will be covered)**
  - Duct tape shrinks when painted
  - Duct tape should be covered with masking tape if you need to paint it
  - Clear tape melts when painted
  - Masking tape works well on glued edges & seams
  - Kraft paper with spray adhesive may also be used





# GO BUILD YOUR BOAT!

WE'LL SEE YOU AT THE WEST UNION AQUATIC CENTER  
SEPTEMBER 2<sup>ND</sup>, 2019

Boats arrive September 2<sup>nd</sup>, at the Aquatic Center between 8:00-10:00 am.

If you have questions, contact:

West Union Parks & Rec

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563-380-8496

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